CLAIMS

1. A girdle for surrounding a plurality of chordae tendinae comprising:

a filamentous body comprising a shape memory material to allow a transition between a linear delivery configuration and an annular treatment configuration.

2. The girdle of claim 1 wherein the shape memory material is a material chosen from a group consisting of: a nitinol alloy, a stainless steel, a cobalt-based alloy, an MP35N® alloy, an Elgiloy® alloy, an engineering plastic, an amide, a polyimide, a polyolefin, a polyester, a urethane, a thermoplastic, a thermoset plastic, and a blend, a laminate and a copolymer of the above materials.

3. The girdle of claim 1 wherein the annular treatment configuration of the girdle has a shape selected from a group consisting of: a ring, a hollow conical frustum, a hollow cylinder, a hollow hourglass, an open coil, a closed coil, and a combination of the above shapes.

4. A system for treating a heart valve comprising:

an elongate delivery catheter having a lumen; and

a girdle having an annular treatment configuration sized and shaped to surround a plurality of chordae tendinae of the heart valve, the girdle having a linear delivery configuration sized and shaped to be releaseably disposed within the lumen of the delivery catheter.

5. The system of claim 4 further comprising a push rod slidably disposed within the lumen of the delivery catheter and being capable of pushing the girdle out of the delivery catheter.

6. The system of claim 5 wherein the push rod includes a flexible distal portion.

7. The system of claim 4 wherein the girdle has a shape memory of the annular treatment configuration to which the girdle tends to reform after having been deformed to the linear delivery configuration.

8. The system of claim 4 wherein the girdle comprises;
an elongate body having first and second ends; and
a locking mechanism for locking the girdle in the annular treatment configuration.

9. The system of claim 8 wherein the locking mechanism comprises:
a first hook disposed adjacent the first end; and
a second hook disposed adjacent the second end and adapted for engagement with the first hook.

10. The system of claim 8 further comprising:
an elongate tether releasably attached to the girdle.

11. The system of claim 8 wherein the elongate body comprises an elastic material.

12. The system of claim 8 wherein the locking mechanism comprises:
a lock portion disposed at the first end, the lock portion having a lumen for receiving the second end; and
at least one tooth disposed adjacent the second end and adapted for engagement with the lock portion.

13. A method for treating a heart valve, the method comprising:

delivering a girdle in a lumen of a catheter adjacent the heart valve;

releasing the girdle; and

encircling a plurality of chordae tendinae of the heart valve with the girdle.

14. The method of claim 13 wherein delivering the girdle comprises positioning the catheter proximate a plurality of chordae tendinae of the heart valve.

15. The method of claim 13 wherein delivering the girdle in a lumen of a catheter comprises inserting the catheter percutaneously.

16. The method of claim 13 wherein the catheter is inserted percutaneously and advanced transluminally to a left ventricle through an aortic valve.